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AVCO LYCOMING DIVISION

AVCO NEW IDEA FARM EQUIPMENT DIVISION

AVCO BROADCASTING CORPORATION

AVCO ELECTRONICS DIVISION

AVCO ORDNANCE DIVISION

AVCO AEROSTRUCTURES DIVISION

AVCO TULSA DIVISION



AVCO CORPORATION

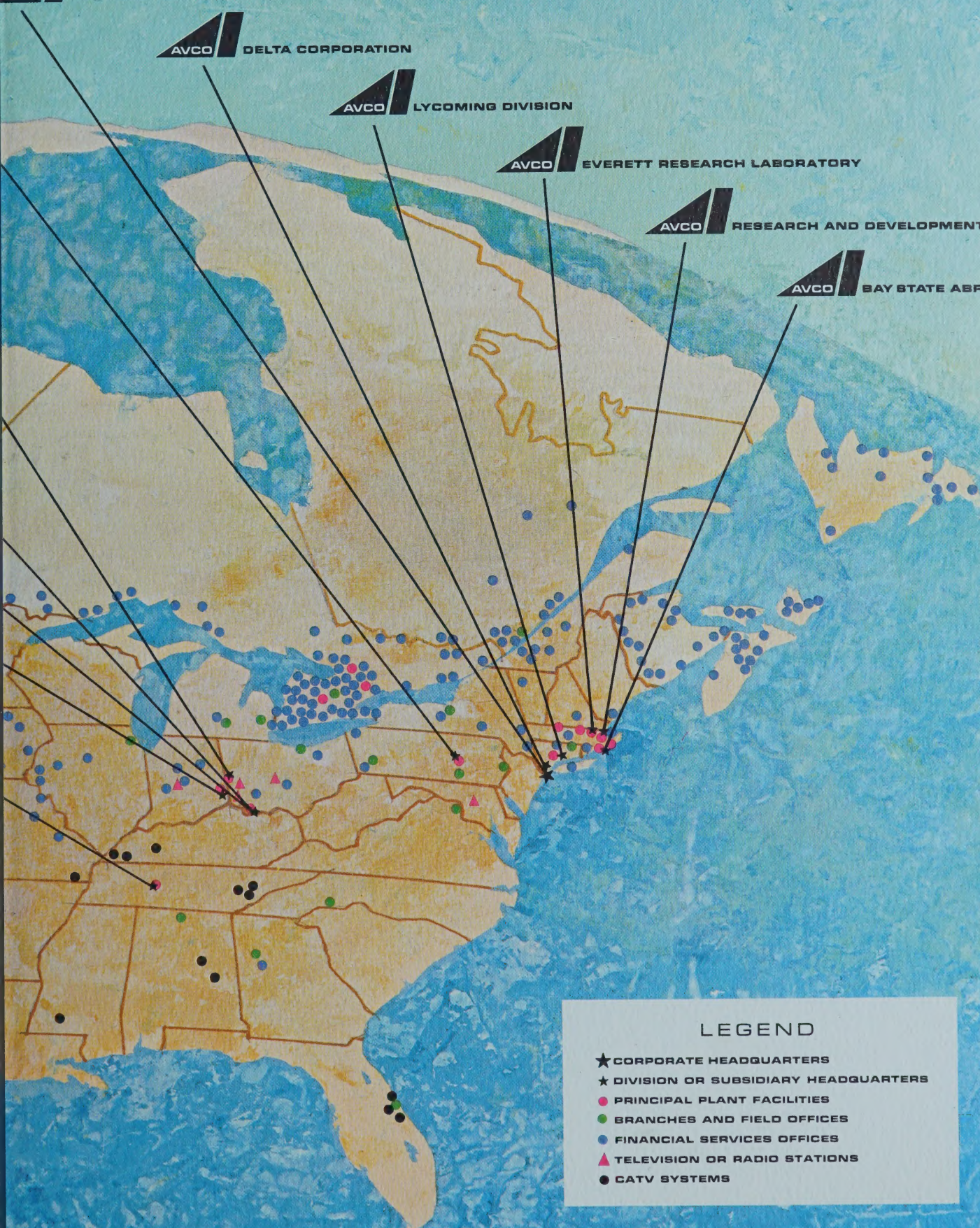
AVCO DELTA CORPORATION

AVCO LYCOMING DIVISION

AVCO EVERETT RESEARCH LABORATORY

AVCO RESEARCH AND DEVELOPMENT DIVISION

AVCO BAY STATE ABRASIVES DIVISION



LEGEND

- ★ CORPORATE HEADQUARTERS
- ★ DIVISION OR SUBSIDIARY HEADQUARTERS
- PRINCIPAL PLANT FACILITIES
- BRANCHES AND FIELD OFFICES
- FINANCIAL SERVICES OFFICES
- ▲ TELEVISION OR RADIO STATIONS
- CATV SYSTEMS



AVCO'S NEW SYMBOL:

Our cover features the distinctive new symbol which identifies Avco, its divisions and U.S. subsidiaries. The symbol is part of a new corporate identification system reflecting more closely the association of the divisions and subsidiaries, and their products and services, with Avco Corporation and with each other.



AVCO MAP: *A perspective map of North America, forming the inside front cover of this report, shows the locations of Avco plants, branches and other facilities.*

APR 6/1966



GENERAL OFFICES: 750 THIRD AVE., NEW YORK, N. Y. 10017

ANNUAL REPORT 1965

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STOCK TRANSFER AGENT:

*Schroder Trust Company,
57 Broadway, New York, New York 10015.*

REGISTRAR:

*Bankers Trust Company,
16 Wall Street, New York, New York 10015.*

CO-TRANSFER AGENTS:

*The First National Bank of Chicago,
38 South Dearborn Street, Chicago, Illinois 60690.*

*Bank of America National Trust and Savings Association,
1 South Van Ness Avenue, San Francisco, California 94120.*

*Crown Trust Company,
302 Bay Street, Toronto, Ontario, Canada.*

CO-REGISTRARS:

*Harris Trust and Savings Bank,
111 West Monroe Street, Chicago, Illinois 60690.*

*Wells Fargo Bank,
464 California Street, San Francisco, California 94120.*

*The Canada Trust Company,
110 Yonge Street, Toronto, Ontario, Canada.*

TRUSTEE:

*Convertible Debentures—Bankers Trust Company,
16 Wall Street, New York, New York 10015.*

LISTING OF SECURITIES:

*Common Stock and Convertible Debentures—
New York Stock Exchange,
Midwest Stock Exchange.
Common Stock—
Toronto Stock Exchange.*

ANNUAL MEETING: *The annual meeting of stockholders of Avco Corporation will be held April 14, 1966. Formal advance notice of the meeting will be mailed to all stockholders.*

BOARD OF DIRECTORS

Kendrick R. Wilson, Jr.,* *Chairman*

George E. Allen*

Earl H. Blaik*

James Bruce*

Rudolph H. Deetjen

John R. Gosnell*

Frederick W. P. Jones

Herman H. Kahn

Arthur Kantrowitz

James R. Kerr*

Edward H. Litchfield

Daniel K. Ludwig

John A. McDougald

Matthew A. McLaughlin*

William I. Myers*

Benjamin H. Namm

Arthur E. Rasmussen

Richard W. Yantis

**Executive Committee*

OFFICERS

Kendrick R. Wilson, Jr.
*Chairman of the Board
and Chief Executive Officer*

James R. Kerr
President and Chief Operating Officer

Earl H. Blaik
Chairman of the Executive Committee

Arthur E. Gilman
Vice President

Arthur Kantrowitz
Vice President

E. Douglas Kenna
Vice President

Matthew A. McLaughlin
Vice President and General Counsel

John M. Mihalic
Group Vice President

Henry J. Oechler
Vice President, International Operations

Arthur E. Rasmussen
Financial Vice President

Curry W. Stoup
Group Vice President

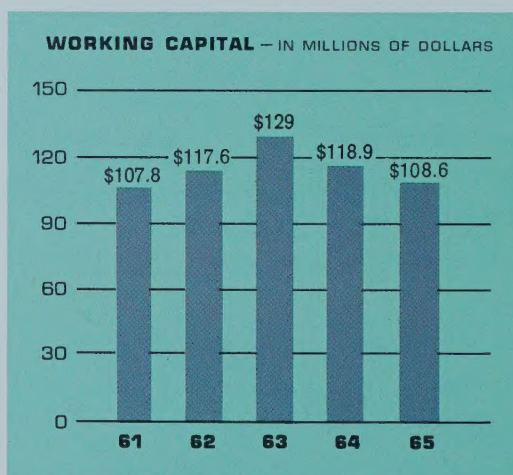
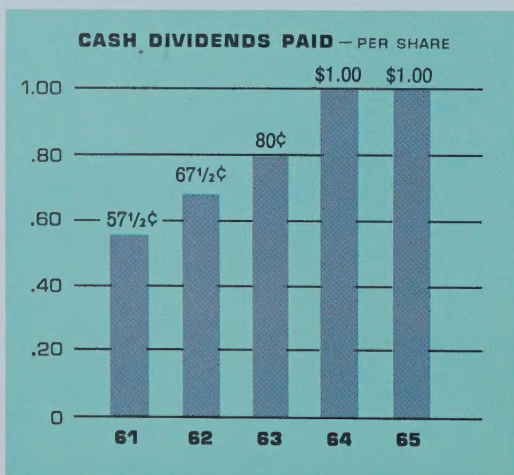
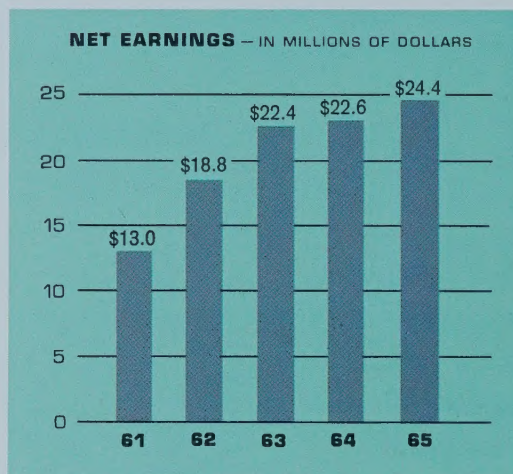
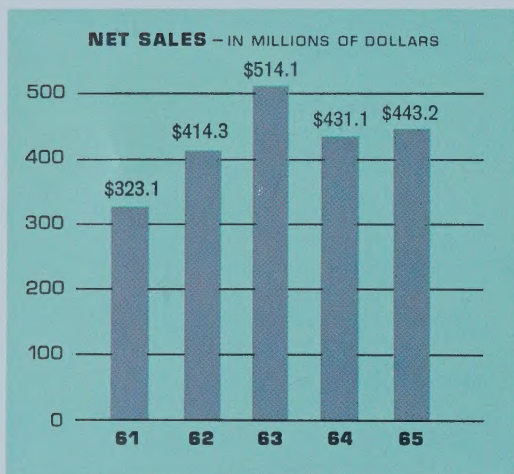
Frank S. Larson
Treasurer

Gordon M. Tuttle
Secretary



CORPORATION • FINANCIAL HIGHLIGHTS

	Year ended November 30 1965	Year ended November 30 1964
Net sales	\$443,194,878	\$431,075,716
Earnings before income taxes	\$44,333,287	\$44,544,540
Net earnings	\$24,433,287	\$22,644,540
Net earnings per common share	\$1.78	\$2.05
Working capital	\$108,640,982	\$118,948,068
Cash dividends per common share	\$1.00	\$1.00
Number of holders of common stock	86,830	81,615



REPORT OF THE CHAIRMAN AND PRESIDENT

To the Stockholders of Avco Corporation:

Avco Corporation made important advances during 1965 in expanding its interests and strengthening its existing capabilities. We take pleasure in sending you this report to acquaint you with the developments of 1965 and the outlook for 1966.

Financial Results

Consolidated net earnings for the fiscal year ended November 30, 1965, reached an all-time high of \$24,433,287, exceeding the 1964 record of \$22,644,540. In 1965, earnings were \$1.78 a share, based on an average of 13,705,064 shares outstanding, compared with 1964 earnings of \$2.05 per share based on an average of 11,048,255 shares outstanding. Lower earnings per share were due principally to abnormal costs incurred in new operations and the increase in Avco common shares outstanding.

Consolidated net sales were \$443,194,878 in 1965, compared with \$431,075,716 in 1964. Operations of Avco Delta Corporation and its subsidiaries are not reflected in these net sales figures. However Avco's equity in the consolidated net earnings of Avco Delta is included in Avco's 1965 net earnings, accounting for approximately 15 per cent.

Corporate Expansion

The year 1965 was one of unusual significance for Avco, being a period during which more than \$120 million in cash and in stock was expended for the acquisition of new commercial businesses with promising growth potential.

At the beginning of the year Avco entered the growing field of diversified financial services through the acquisition of Delta Acceptance Corporation Limited. In September the stock of Iowa Finance Company and four affiliated companies was purchased for \$16 million in cash.

The financial services business, a major portion of which consists of personal loan operations, should account for about 20 per cent of Avco's earnings in 1966.

In August Avco paid approximately \$26 million in cash to acquire Bay State Abrasive Products Company, now a division of your company. Avco Bay State Abrasives is the third largest enterprise in the bonded abrasives industry. Its research is effectively complemented by Avco's other research capabilities in high temperature materials.

During the second half of the year your company also expanded its broadcasting operations. VHF television station WOAI-TV and clear chan-

nel radio station WOAI in San Antonio, Texas, were purchased, and radio station WWDC and its associated FM outlet in Washington, D. C., were acquired. Avco Broadcasting Corporation, formerly Crosley Broadcasting Corporation, now operates five VHF television stations plus three AM and one FM radio stations.

In October Avco borrowed \$50 million from two insurance companies through the issuance of 4 $\frac{7}{8}$ per cent promissory notes maturing in installments until 1985. Proceeds of the financing, after retiring \$12 million of existing long term debt, were used to help defray the cost of recent acquisitions and for general corporate purposes.

Corporate Operations

While acquiring and developing new sources of sales and earnings, Avco has also sought growth in its continuing operations. Demand for Avco Lycoming engines to power executive and utility aircraft is at an all-time high and the future market appears very favorable. Sales of Avco New Idea farm implements, paced by the Uni-System line of interchangeable self-propelled harvesting equipment, are expected to double by 1970. Broadcasting operations during the past year achieved the highest revenues in their history and are projected to set new records in 1966.

Avco continues to be an important defense and space contractor. Your company's gas turbine engines presently power most of the helicopters flown by our armed forces, and production in 1966 is scheduled to increase sharply. The selection of Avco Lycoming to develop a new gas turbine engine to power tanks and other vehicles, and the award to Avco Lycoming of important contracts for the improvement of aircraft turbine engines, enhance the company's future in this field.

During 1965 Avco received additional large contracts for major structural components of the C-130 and C-141 jet transports and orders for increased ordnance and electronics production. A significant contract to produce second generation heat shields for the Apollo spacecraft was also awarded to the company. Avco entered the 1966 fiscal year with a \$373 million backlog of government business, 30 per cent above a year ago.

Early in 1966, Avco's newly formed subsidiary, Economic Systems Corporation, received a contract from the Office of Economic Opportunity to establish and operate a Job Corps training center for women at Poland Spring, Maine.

Research and Development

Your company continues to emphasize research and engineering, supported by both government and company funding. Avco Research and Development Division is maintaining its leadership position in technologies relating to

the atmospheric reentry of missiles and spacecraft, while expanding its research in advanced materials. Of particular promise are composite materials of boron fiber and metal or plastic for structural applications in aircraft and space vehicles.

Avco Everett Research Laboratory is recognized throughout the world for its developments in the field of high temperature gas dynamics including magnetohydrodynamics (MHD). The first MHD generator to be built for other than experimental purposes is being supplied to Arnold Engineering Laboratory to power a hypersonic wind tunnel.

Outlook

In 1966, we expect both last year's acquisitions and growth in our other operations to contribute to increased per share earnings. Expenditures for start-up costs for new products, which were unusually large in 1965, are expected to return to normal levels in 1966.

About 56 per cent of Avco's 1965 earnings were derived from commercial sales, up from 47 per cent in 1964 and 40 per cent in 1963. Commercial operations in 1966, despite an expected increase in earnings from defense business, should provide more than 60 per cent of earnings.

This has been a year of vigorous effort and orderly progress. We believe your company is well prepared to meet the demands and opportunities of our expanding economy and to grow and prosper with it.

We record with appreciation the faithful service of Martin W. Clement who chose not to stand for reelection as a director at the 1965 annual meeting.

It is with profound sorrow that we record the passing since the last annual report of directors Neil J. Curry, C. Coburn Darling, Robert L. Johnson and James D. Shouse, who served Avco devotedly and well.

On behalf of the Board of Directors, we thank you, the stockholders of Avco, for your support.

By order of the Board of Directors



Chairman



President

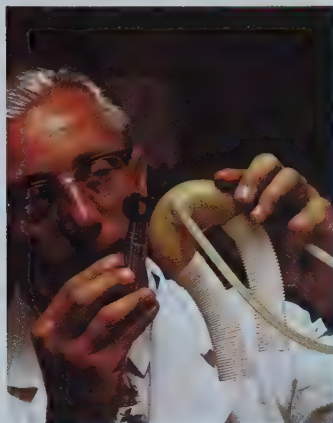
January 20, 1966



AVCO

CORPORATION

OPERATIONS | PRODUCTS | SERVICES



AVCO AEROSTRUCTURES DIVISION
NASHVILLE, TENNESSEE

Structures and assemblies for space vehicles, rocket boosters, missiles, aircraft and helicopters—aluminum and stainless steel honeycomb panels, thermal control panels—thrust termination tubes for rockets—metal office furniture and major appliances manufactured under contract.

AVCO BAY STATE ABRASIVES DIVISION AND SUBSIDIARIES

WESTBORO, MASSACHUSETTS; TORRANCE, CALIFORNIA; BRANTFORD, ONTARIO, CANADA; STEINSEL, LUXEMBOURG

Vitrified and resin bonded grinding wheels and segments—honing stones—abrasive cut-off blades—diamond grinding wheels and cut-off blades—open-mesh coated abrasive cloth.

AVCO ELECTRONICS DIVISION
CINCINNATI, OHIO; HUNTSVILLE, ALABAMA

Combat communications systems—receivers, coders, decoders and telemetry for space research—command and destruct receivers for missiles—infrared and electro-optical systems—field engineering services.

AVCO EVERETT RESEARCH LABORATORY
EVERETT AND HAVERHILL, MASSACHUSETTS

Reentry physics—plasma dynamics—magnetohydrodynamic (MHD) power generators for commercial and military applications—superconductive devices—space science and technology—bio-medical engineering and cardiac assist device research—high power gas laser research and technology.

AVCO LYCOMING DIVISION
STRATFORD, CONNECTICUT

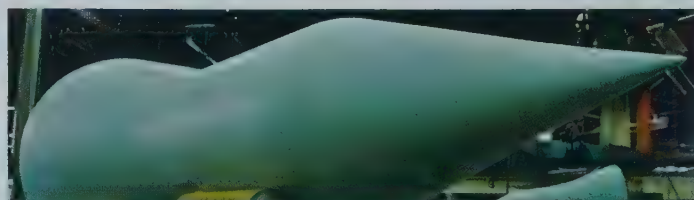
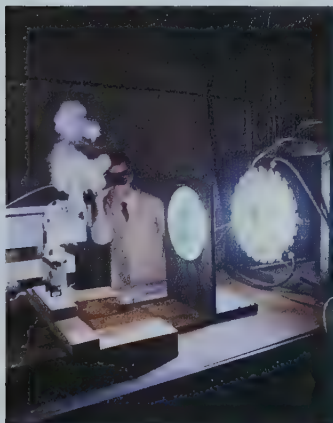
Gas turbine engines for fixed wing aircraft and helicopters—marine and industrial engines—engine components—missile reentry vehicles and structural components—rocket motor cases—fuel and oxidizer tanks—ground support equipment for missiles—hydrofoil vehicles—constant speed transmissions—precision sheet metal fabrication—aircraft mechanical controls.

AVCO LYCOMING DIVISION
WILLIAMSPORT, PENNSYLVANIA

Reciprocating engines for fixed wing aircraft and helicopters—multi-fuel engines—engine components—precision sheet metal fabrication—heat treating and plating—hardened and ground precision parts—Avco Spencer commercial and residential heating boilers, sewage treatment equipment.

AVCO NEW IDEA FARM EQUIPMENT DIVISION
COLDWATER, OHIO; FORT DODGE, IOWA

Corn pickers, snappers, picker-shellors, picker-grinders—manure spreaders—fertilizer spreaders—farm wagons—farm elevators—hydraulic loaders and attachments—rotary cutters, mowers, hay conditioners, cut/ditioners, parallel bar rakes, wheel rakes—Avco Barn-O-Matic barn cleaners, silo unloaders, bunk feeders—Avco Uni-System line of interchangeable self-propelled harvesting equipment—Avco Ezee Flow fertilizers and lime spreaders, insecticide-herbicide applicators.





AVCO ORDNANCE DIVISION RICHMOND, INDIANA

Special non-nuclear ammunition and ordnance—anti-armor and anti-personnel weapons—missile arming and fuzing—missile, mine, mortar and artillery warheads—special weapons for limited warfare—Avroc and other tactical weapons systems.

AVCO RESEARCH AND DEVELOPMENT DIVISION WILMINGTON, LOWELL AND LAWRENCE, MASSACHUSETTS

Ballistic missile reentry systems and penetration aids—manned spacecraft thermal protection systems—unmanned planetary exploration vehicles and probes—scientific satellites—supporting and exploratory research in materials, space sciences and marine technology—life sciences—specialized manufacturing and support services for environmental testing, computation, standards and calibration.

AVCO TULSA DIVISION TULSA, OKLAHOMA

Radiation detectors and dosimeters—research of space environment effects on materials—space simulation equipment—flight-rated geophysical instrumentation—custom manufacture of mass spectrometers—mass spectrographic analysis of nuclear fuels—environmental shock test equipment and compact vapor cleaning equipment for military and industrial uses.

AVCO DEFENSE AND INDUSTRIAL PRODUCTS GROUP WASHINGTON, D. C.; DAYTON, OHIO; HOUSTON, TEXAS; LOS ANGELES, CALIFORNIA

AVCO INTERNATIONAL OPERATIONS NEW YORK, NEW YORK; WASHINGTON, D. C.; PARIS, FRANCE

PRINCIPAL SUBSIDIARIES

AVCO BROADCASTING CORPORATION

CINCINNATI, OHIO

Radio stations—WLW: Cincinnati, Ohio • WOAI: San Antonio, Texas • WWDC-AM and FM, Washington, D.C.

VHF television stations—WLW-T: Cincinnati, Ohio • WLW-C: Columbus, Ohio • WLW-D: Dayton, Ohio • WLW-I: Indianapolis, Indiana • WOAI-TV: San Antonio, Texas.

Subsidiary—Broadcast Communications Group: New York, New York.

AVCO DELTA CORPORATION AND SUBSIDIARIES

NEW YORK, NEW YORK; VARIOUS LOCATIONS IN THE UNITED STATES AND CANADA

Personal loans—commercial and industrial financing—industrial banking—home improvement financing—insurance.

ECONOMIC SYSTEMS CORPORATION

POLAND SPRING, MAINE

Educational training services.

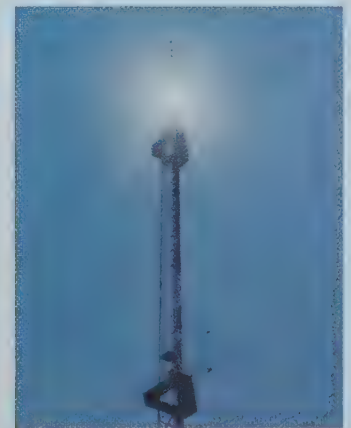
MOFFATS LIMITED

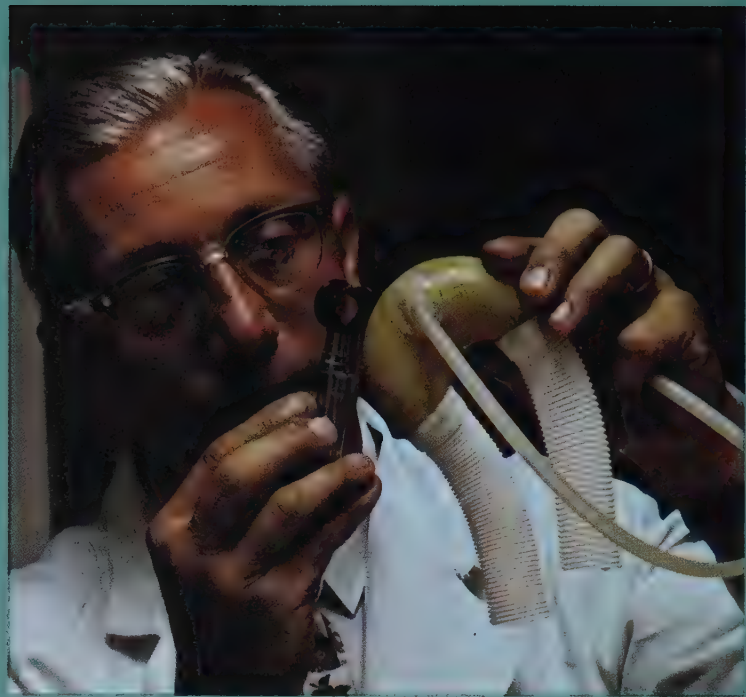
WESTON AND ORILLIA, ONTARIO, CANADA;
LONDON, ENGLAND; UDDINGSTON, SCOTLAND

Gas and electric free-standing and built-in ranges—refrigerators—clothes washers and dryers—heating equipment—commercial cooking and food service equipment—water heaters—range heating elements.

MEREDITH-AVCO, INC. (50 per cent owned) CINCINNATI, OHIO

Community antenna television systems.





- *Top left: Avco Everett technicians at work on a plasma wind tunnel used to simulate interplanetary shock waves. Understanding these waves with their high radiation is necessary for future manned space flight.*
- *Top right: Close inspection is given to an artificial left ventricle or booster heart developed under a medical technology program at Avco Everett in cooperation with Maimonides Hospital in New York.*
- *Below: A spray of sparks is given off by a new high speed snagging wheel designed by Avco Bay State. These wheels are used for removing excess metal, as in the preparation of steel billets for the rolling mill. Such products have given the division an important position in the abrasives field.*

RESEARCH AND DEVELOPMENT *During the coming decade, research and technological change will have an ever increasing effect on the goods and services available in the marketplace. Avco is at work in advanced areas to meet this evolving challenge which ranges from outer space to earth and beneath the sea.*

During 1965 Avco continued to emphasize and expand its research and development activities.

The importance of these activities for the future is indicated by the fact that of 1965 sales, 59 per cent came from products developed by the corporation in the past decade.

Main technical areas of research and development are space systems and space instrumentation, missile and antimissile systems, magnetohydrodynamic power generation, tactical communications, special ordnance, engines, medical technology and materials engineering.

Avco's manufacturing-oriented divisions are constantly engaged in product development and improvement programs as described in the section on Commercial Operations. At Williamsport, for example, major advances are being made on reciprocating engines. At Westboro, Avco Bay State engineers develop improved grinding wheels and machining techniques.

Last year Avco's long range research and development activities in support of products for peripheral or limited warfare gained new impetus as the conflict in Vietnam accelerated the need for new weapons. A number of contracts were received for development of materiel ranging from tank engines to hand-held weapons and ammunition. The Avco Lycoming Division at Stratford received an Army contract to develop a gas turbine engine for tanks, that will achieve 1500 horsepower, burn diesel fuel and be 50 per cent lighter than comparable diesel engines.

Avco Electronics Division continues to supply improved lightweight man-pack and vehicular communications equipment for test under combat conditions. The feasibility of Avco Ordnance Division's Avroc Weapons System, including the Avroc 25-40 for use on personnel carriers, tanks and other combat vehicles as well as helicopters, has been proved.

Avco Tulsa is developing for the Air Force an airborne ground surveillance system using company-designed magnetometers. Avco Research and Development Division is working on new materials for personnel armor.

A four-cylinder multifuel engine developed by Avco Lycoming is currently being tested by the Army and Marine Corps for both wheeled and tracked vehicles.

Six- and eight-cylinder models are being produced at Williamsport for similar evaluation.

In the field of space systems, work on heat shields for the Apollo command module continues, and several key contracts for preliminary study phases for the Voyager program—the unmanned scientific exploration of Mars—were received by Avco Research and Development Division. The orders resulted in large part from the company-funded activities initiated in 1963 in support of interplanetary space exploration.

These efforts have extended knowledge of the Martian atmosphere and surface, and contributed to the design of proposed guidance, communications and heat absorbing systems for the complex Mars lander.

Avco is studying for NASA the feasibility of two different types of small, lightweight Mars probe vehicles—one to make atmospheric measurements and communicate information back to earth during entry into the Martian atmosphere, the other to negotiate a survivable landing and communicate data back to receiving stations on earth.

Tests are being made at Avco Research and Development Division on a planetary surveying platform designed to permit uninterrupted mapping of a planetary surface.



RESEARCH AND DEVELOPMENT

Knowledge of the deep space between planets is as important as knowledge of the planets themselves. In 1965 Avco completed the first phases of its investigation to determine the feasibility of a radio astronomy satellite with very large antennae to orbit the earth, gathering data on radio "noise" from the farthest reaches of the cosmos, and began contract work on a program known as "moon balloons" to develop instrumentation for measuring the chemical composition of micrometeorites traveling through deep space.

Materials necessary for proper functioning of spacecraft, such as the paint on the surface which influences the temperature at which the craft operates, are subject to damage by the space environment. Experiments for NASA to determine the damaging effects of the space environment on these thermal coatings and on optical glass and metal surfaces are being conducted at Avco Tulsa.

Early work at Avco Research and Development Division for the Air Force on use of boron fibers for new structural composite materials of fiber imbedded in high temperature plastic or metal was highly successful. As a result, a contract to build and operate a boron filament production plant on an experimental basis was received.

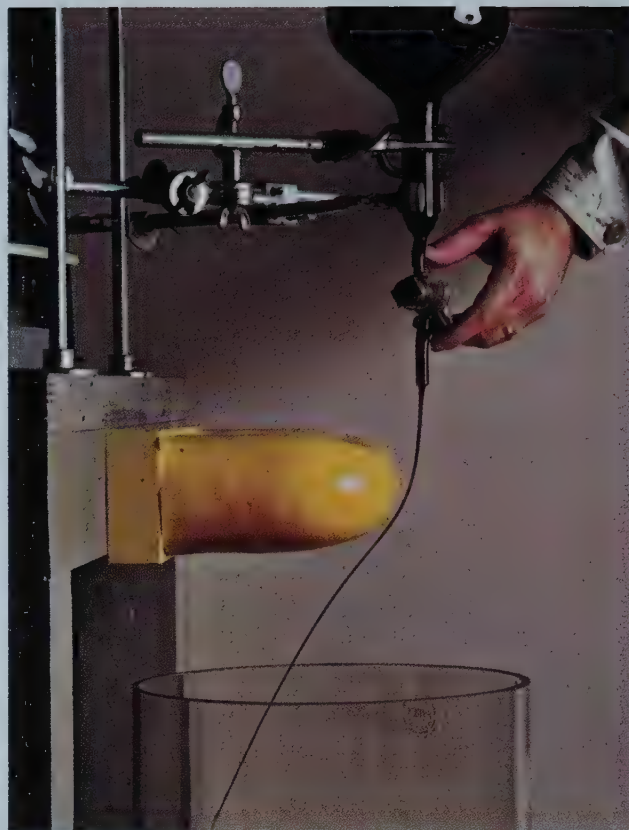
This pilot plant, with six separate production lines, is scheduled for completion early in 1966 at North Wilmington, Mass. Wide application of boron composite materials for spacecraft and aircraft is anticipated.

Under a NASA contract, the division has started a program to synthesize and evaluate ferrohydrodynamic or highly magnetic fluids. Among the promising applications for these unusual liquids is their use in direct conversion heat engines for space vehicle power supplies and in guidance and attitude control instrumentation.

Both the Avco Everett Research Laboratory and Avco Research and Development Division are continuing the reentry studies which were started for the Air Force more than 10 years ago. Avco Research and Development has contracts for improving the operational capabilities of future ballistic missile weapons systems in the hostile environments generated by active defense systems.

From aircraft operating over the Pacific missile range, Avco Everett monitors the reentry of ICBM nose cones. The laboratory also conducts classified research studies necessary for developing the Army's Nike X antimissile defense system using data obtained from the monitoring work.

A group of 10 leading public utilities, represented



Avco's far ranging research interests include ferrohydrodynamic fluids. In this view, the unique magnetic fluid curves as it falls near the yellow colored magnet.

by the American Electric Power Company, continued last year to work with Avco on the development of commercial magnetohydrodynamic (MHD) power generation. This cooperative venture, which has been under way for seven years, will continue in 1966.

MHD generators are also capable of producing very high power for limited durations. In May the Mark V rocket-driven, experimental short-burst generator, built for the Department of Defense, achieved a net output of 23.6 million watts. The Air Force recently awarded Avco Everett a new contract to study the feasibility of using the Mark V to produce a series of short, intense bursts of energy.

Avco Everett recently received a contract from the Army to develop a superconducting energy-storage device. Its capability will be 100,000 watt-seconds.

Medical technology research was expanded with major emphasis on development of a booster heart. The work is being done in cooperation with Maimonides Hospital, New York. Essentially this device is a pump implanted within the chest of the patient and attached to the aorta—the artery which delivers blood from the heart to the rest of the body. It is driven by an external air pump and a specially devised elec-



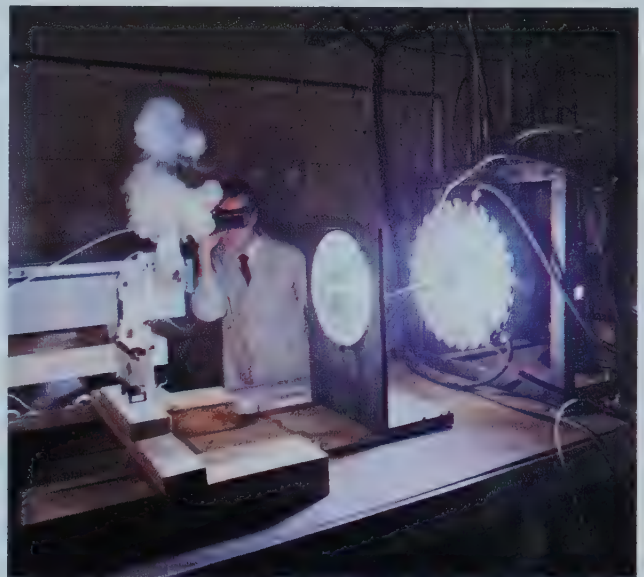
Avco Everett technicians are seen at work on the top half of the largest superconducting magnet ever built and tested. Ten such units were joined to form a superconducting magnet designed for use in an experimental MHD power plant. The laboratory used 80,000 feet of Avco-designed stabilized superconducting strip to build the huge magnet.

tronic timer which synchronizes the pump with the rhythm of the human heart.

In September the National Heart Institute awarded Avco Everett a contract to study the medical, surgical, technological, economic, legal and social factors which must be considered in the development of artificial hearts. The contract is one of six awarded recently to industry for research in the conceptual phase of the Institute's artificial heart program.

During the year, Avco Everett developed a 50-kilowatt, ultraviolet, pulsed gas laser, which is believed to have one of the highest power outputs ever achieved. The feasibility of using gas lasers for communications is being studied under government contract.

Avco Spencer has started work on the development of an electro-hydraulic residential heating boiler. This will be the first Avco Spencer boiler to use electricity as a heating source. Also under development at Williamsport are sewage treatment units providing extended aeration and greatly increased capacity.



Heat shielding material is test ablated in a single-source arc radiation simulator at Wilmington. A lens in this Avco-designed device intensifies the heat during test.



- *Top left: These are examples of Avco Bay State Abrasives' wide range of products. The division makes abrasives in a multiplicity of sizes and shapes for many tasks, from working steel slabs to sharpening razor blades.*
- *Top right: A portion of the facility for mixing ingredients at Avco Bay State. Orders for special abrasive grain formulas are relayed by computer to a storage area which then feeds the appropriate mix into waiting barrels.*
- *Below: Avco New Idea Farm Equipment Division's highly successful Uni-System line of self-propelled, interchangeable harvesting equipment is seen "on parade." This equipment will play a major role in the division's future.*

COMMERCIAL OPERATIONS *Avco's commercial operations were expanded significantly in 1965. The company's position in manufacturing, financial services and broadcasting was strengthened through important acquisitions, which will contribute increasingly to Avco's growth and profitability.*

MANUFACTURING

The company's major commercial manufacturing operations in aircraft engines, specialized farm equipment and other areas were extended, through acquisition, to the important field of abrasives.

Sales of reciprocating aircraft engines produced at Avco Lycoming's Williamsport, Pa., facility rose to a new record during fiscal 1965. Avco engines now power more types of executive and utility aircraft than those of any other manufacturer.

Industry forecasts, based on statistics from airframe manufacturers and government sources, indicate that 1966 should be another excellent year for the executive and utility aircraft industry.

Consequently, Avco expects an increase in its output of reciprocating engines during the year.

Among the reasons for the expected increase in engine output are the design activities carried on at Williamsport that have resulted in new and improved engines for use on fixed wing aircraft and helicopters.

Among the models recently certified by the Federal Aviation Agency was the TIO-541. This is a new design incorporating features not found in older models. It is turbo-supercharged and develops 310 horse-

power up to 15,000 feet. It also has provision for cabin pressurization at no loss of power.

Improvements also have been made in some models of existing engines to make them capable of being turbo-supercharged.

Activity at the division's Williamsport service installation, which provides customers with maintenance facilities, remained at a high level last year.

The Williamsport facility also produces the Avco Spencer line of residential and commercial heating boilers. Additionally it makes a series of packaged sewage treatment plants, which have wide residential and commercial applications.

Although Avco Lycoming's Stratford plant is best known for its role as a military producer, its products are being used increasingly for various commercial applications. The T53 gas turbine engine, for example, powers the Bell 204 commercial helicopter. Avco Lycoming turbines now power civilian rotary wing aircraft in the United States and 12 other countries.

Sales of gas turbine engines and spare parts to customers other than the U.S. government are presently in excess of \$4 million annually. Licensing

To meet rigid performance requirements, reciprocating engines made by Avco Lycoming Division are subject to a series of inspections during assembly at Williamsport.



Reciprocating engines made by Avco Lycoming power more types of business and utility aircraft, such as the Piper model below, than do those of any other manufacturer.



COMMERCIAL OPERATIONS

agreements with manufacturers in Italy and West Germany are expected to increase sales in Europe.

Avco New Idea Farm Equipment Division took important steps last year to prepare for the accelerating trend toward larger and more mechanized farms.

It is expected that in the next five years Avco New Idea's Uni-System line of interchangeable, self-propelled harvesting equipment will be increasingly in demand. Produced in volume for the first time in 1965, the Uni-System provides a single power source, to which a variety of implements may be attached.

Substantial start-up costs for the Avco Uni-System were incurred in 1965. However, as the result of the favorable outlook for the Avco Uni-System, an expansion program is being undertaken at Coldwater, Ohio, which will increase plant size by 30 per cent, or 300,000 square feet of floor area. The new space will be used for a repair parts and finished goods warehouse, as well as offices. Also included in the expansion program are plans to convert some of the existing storage space into assembly areas.

The Avco Uni-System and other Avco New Idea products are marketed through 12 branches, nearly 30 distributors and more than 2200 dealers in the United States and Canada. A United Kingdom branch markets a partial product line. Sales volume of the farm equipment division is expected to double by 1970.

In November the division expanded its Avco Uni-System line with the introduction of a new high capacity forage harvester, two power units with higher horsepower, and three new stripper plate cornheads for use on Uni-Combines and Uni-Pickers.

Volume mainstays of the Avco New Idea line last year continued to be manure spreaders and corn pickers. Among the latter, narrow row pickers are attracting wide interest. Husking bed improvements were made on the picker line to provide cleaner corn ears and otherwise increase efficiency of the machines. An improved hay conditioner also was introduced.

A single shipment of 570 Avco New Idea corn harvesting units to Yugoslavia last year was the largest yet made by the division in either a domestic or foreign market. Avco New Idea personnel trained Yugoslavs to operate the equipment. Products of the division are now in use in more than 30 countries around the world.

Avco Ezee Flow fertilizer spreaders are now being used by golf courses and parks, in addition to farms. The recent increase in the number of bulk fertilizer plants has opened up new markets for the two-ton spreader as well as the recently introduced four-ton model. Manufacturing facilities for the line of farmstead automation equipment were moved last year



This Avco Barn-O-Matic auger feeder carries feed from the silo to waiting cattle, at the touch of a button. Special controls assure equal rations for the dairy herd.

from New London, Wisconsin, to Fort Dodge, Iowa.

Avco Bay State Abrasives, which was acquired by the corporation in August, posted higher sales in 1965 for the fourth consecutive year and again increased its share of the grinding wheel market. Avco Bay State is firmly established as the third largest producer in its industry.

The division introduced several new products including a copper base diamond grinding wheel. Because of the heat conducting properties of copper the wheels have a longer life than conventional models. They were well received during the early stages of marketing.

Also placed on the market for the first time was a new line of electrolytic grinding wheels. These are expected to be widely employed for electrically assisted grinding, used for heat and abrasive resistant materials including those having aerospace applications.

Abrasive machining is another area in which Avco Bay State has been active. The company uses a new abrasive bond developed in 1964. The technique of



Introduction of new products, featuring advanced styling, has helped Moffats maintain its position as a leading supplier of home cooking equipment in the Canadian market.

abrasive machining is generally considered in the industry to be an important factor in opening new markets for grinding wheels.

Avco Bay State is planning a major expansion program to increase the capacity and efficiency of its Westboro facility. Additional floor space is also needed for the composite coating, DiPaC and Plasma-Gun activities of Avco Research and Development's Industrial Products Subdivision which Avco Bay State is absorbing.

The division's subsidiaries in the U. S., Canada and

Tiny air bubbles, seen through the wall of a glass tank, are the key to the Avco Spencer sewage treatment system. Larger units, under development, will soon expand the line.



Avco Aerostructures has begun production of wings for the new Grumman Gulfstream II, a jet-powered long range executive aircraft seen in this artist's rendering.

Luxembourg all improved their operations.

The subsidiary in Brantford, Ont., Canada, increased its sales in the grinding wheel market and its growth was at a greater rate than that of the overall industry in Canada.

The Luxembourg facility, which produces a complete line of bonded abrasive products and grinding wheels, strengthened its marketing organization.

Felker Manufacturing Company, an Avco Bay State subsidiary in Torrance, Calif., relocated some of its operations and expanded its other facilities, materially reducing manufacturing costs.

Avco Aerostructures Division's capabilities as a manufacturer of major airframe components are employed primarily for military purposes. However, the division last year began production of wings for Grumman's new jet-powered Gulfstream II, a long range corporate aircraft. Capable of flying at speeds up to 585 miles per hour, the plane will be able to accommodate as many as 19 passengers. Each wing being fabricated is 35 feet long and its width varies from six feet at the tip to 17 feet at the root. Avco Aerostructures also manufactures kitchen ranges and metal office furniture under contract.

Moffats Limited, a Canadian subsidiary of Avco, continues as one of the largest manufacturers of gas and electric kitchen ranges in Canada. Sales of the higher priced Gourmet line rose 15 per cent last year and are expected to advance again in 1966.

In 1965, Moffats' operations were adversely affected by abnormal expenses in the United Kingdom and by a work stoppage in its principal Canadian plant, followed by another in the plant of a major supplier.



Avco Delta has converted its record keeping and control operation to a magnetic tape computer system, capable of handling nearly twice as many accounts as are now processed by the fast growing financial services subsidiary.



High speed printing by Avco Delta's centralized computer enables the subsidiary to keep its vast records current.



To insure its staff is prepared for advancement, Avco Delta conducts a comprehensive training program.

FINANCIAL SERVICES

Avco Delta Corporation continued to expand its position in the financial services field during 1965 through both internal growth and acquisition.

In September, Avco Delta acquired Iowa Finance Company and its affiliates. These companies and their subsidiaries have 70 offices in eight Midwestern and Rocky Mountain states, engaging in the consumer loan field.

Avco Delta also acquired Citizens Finance Company and its subsidiary, Citizens Industrial Bank of Grand Junction, Colo., during the summer.

Avco Delta's subsidiaries now operate in 19 states and all 10 Canadian provinces. On November 30, 1965, they had a network of 354 offices compared with 211 when Avco's acquisition of Delta Acceptance Corporation Limited became effective in December 1964.

During fiscal 1966, Avco Delta expects to open 56 new offices which would increase its branch network to more than 400 outlets.

In addition, the company continues to review promising acquisition possibilities, paying special attention to those which provide opportunities for conducting business in geographical regions not presently serviced by Avco Delta. Spreading a lending business over a broad area lessens its dependence

on the fortunes of a given section which may, in turn, be dominated by a single industry.

Avco Delta emphasizes the consumer lending field in which loans are made directly to individuals and are generally secured by durable household goods and automobiles. The company also has a capital equipment division and subsidiaries making home improvement loans and providing general insurance coverage. Its acceptance division purchases sales finance contracts from dealers in consumer durable goods such as automobiles and major home appliances. In Colorado, industrial bank units provide customers with loan and savings services.

Avco Delta's net earnings amounting to \$3.6 million represented nearly 15 per cent of Avco's 1965 earnings. Profits of the financial services subsidiary are expected to account for an even larger share of the parent corporation's earnings in 1966.

These projected net earnings reflect a growing volume of business. Receivables, which rose to \$339 million on November 30, 1965, are expected to increase substantially in 1966.

The consumer finance business follows a practice of lending small sums of money to large numbers of people for relatively short periods of time. Avco Delta's average balance per account receivable is under \$1,000. At the end of November, it had more than 400,000 accounts on its books, including 70,000 accounts obtained in the Iowa Finance acquisition.

Because the company will charge most of its office-opening costs against current operations, the increase in profits this year will be moderately affected by the 1966 expansion program. This practice benefits the operating results of future years. The average loan office takes two years to achieve profitability and another three to reach maximum earnings levels.

Indictments are pending in Massachusetts alleg-

ing violations by Avco Delta's home improvement subsidiary of the Massachusetts Small Loans Law because of the nature of certain loans discounted in that state. In the opinion of local counsel, the subsidiary is not guilty and the discounting of the loans at issue is in fact exempt from the law.

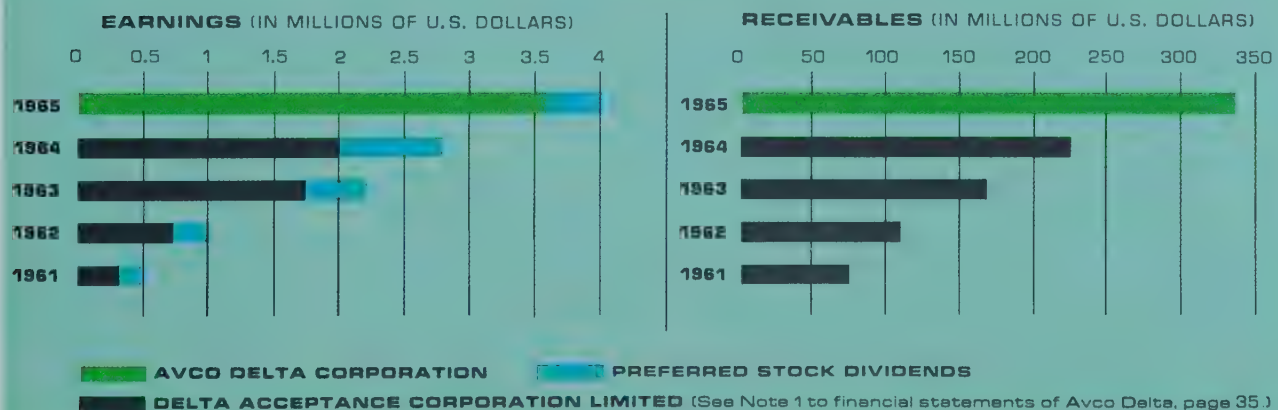
Suits are also pending in Colorado against Delta and its industrial bank subsidiaries alleging among other things that Delta and its subsidiaries are engaged in illegal branch banking and in a conspiracy to monopolize the industrial banking business in the Denver area. Substantial damages are claimed, but in the opinion of Colorado counsel, the suits will not materially adversely affect Delta or its industrial bank subsidiaries.

In two transactions, Avco Delta placed a total of \$78,125,000 in long term securities with institutional investors during the year. Proceeds of both financings were used to finance the subsidiary's growing volume of receivables. In addition, Avco Delta increased its lines of bank credit from a total of \$132 million with 60 banks to \$168 million with 97 banks in Canada and the United States.

During the year Avco Delta completed conversion of its record keeping and control operation to a new magnetic tape computer system, capable of handling nearly twice as many accounts as are now being processed. As a result, Avco Delta can experience substantial expansion without revising its control procedures or making further investment in data handling devices.

Avco Delta continues to operate several formal training schools in addition to its on-the-job training program. These programs develop the personnel to manage and staff the growing network of offices. About 90 per cent of new branch management has been developed under this system.

FINANCIAL SERVICE OPERATIONS





BROADCASTING

Avco Broadcasting Corporation, formerly Crosley Broadcasting Corporation, last year acquired a VHF television station—WOAI-TV of San Antonio, Texas, and three radio stations—WWDC and WWDC-FM of Washington, D.C., and WOAI of San Antonio.

WWDC, one of the first broadcasters to present on-the-air editorials, has a strong news department which emphasizes local issues in the nation's capital. WOAI is a 50,000 watt clear channel station that started broadcasting in 1922. In 1928 WOAI joined NBC to become the first network-affiliated station in Texas. WOAI-TV, also an NBC affiliate, is the oldest television station in south Texas.

Avco has broadcast network color television programs for 12 years, and for nine years it has originated color telecasts. During 1965 all Avco television stations increased their hours of color broadcasting. At WLW-TV, Cincinnati, for example, an average of nearly 100 hours were telecast in color each week, compared with 70 hours in 1964. The stations are now experimenting in the use of color film and tape for local news.

Facilities were opened in Washington, D.C., enabling members of the Congress to broadcast to their constituents through Avco stations. Representatives from Ohio, Indiana and Kentucky now make radio reports on WLW's regularly scheduled program, "Hotline from Washington." Senators from the same states use a similar show, "Report from the Senate."

A news intern program, started in 1964 at WLW-TV and WLW-C, Columbus, to provide qualified college students with on-the-job training in journalism, was expanded last year with the assignment of interns to WLW-TV, Dayton, and WLW-I, Indianapolis.

Tower at the left transmits the television signal of WLW-TV, Columbus. Below is a control room view of a panel discussion, typical of the public service shows originated by Avco Broadcasting Corporation stations.



In addition to providing a substantial schedule of "live" entertainment and news programming, Avco stations have continued to stress public service broadcasting. The Ruth Lyons annual Christmas Fund drive benefits hospitalized children in the three state area reached by her popular show, "50-50 Club." In 1965, \$450,000 was contributed, the largest total in the fund's 25-year history.

During the Ohio State Fair, Governor James A. Rhodes presented certificates of achievement to the Avco Broadcasting stations in the state. The certificates cited "their over 40 years of providing the best in radio and television...their pioneering in high fidelity radio, color television and strong local, live programming...and their unselfish assistance to many public service and humanitarian undertakings."

Broadcast Communications Group, Inc., the subsidiary formed late in 1964 as the national sales representative for the Avco stations and other broadcasting outlets, opened offices in St. Louis, San Francisco and Los Angeles last year.

In another expansion move, Avco Broadcasting

organized a subsidiary, Crosley Enterprises, Inc., to explore and develop new business opportunities for marketing of products and services through both radio and television.

MEREDITH-AVCO

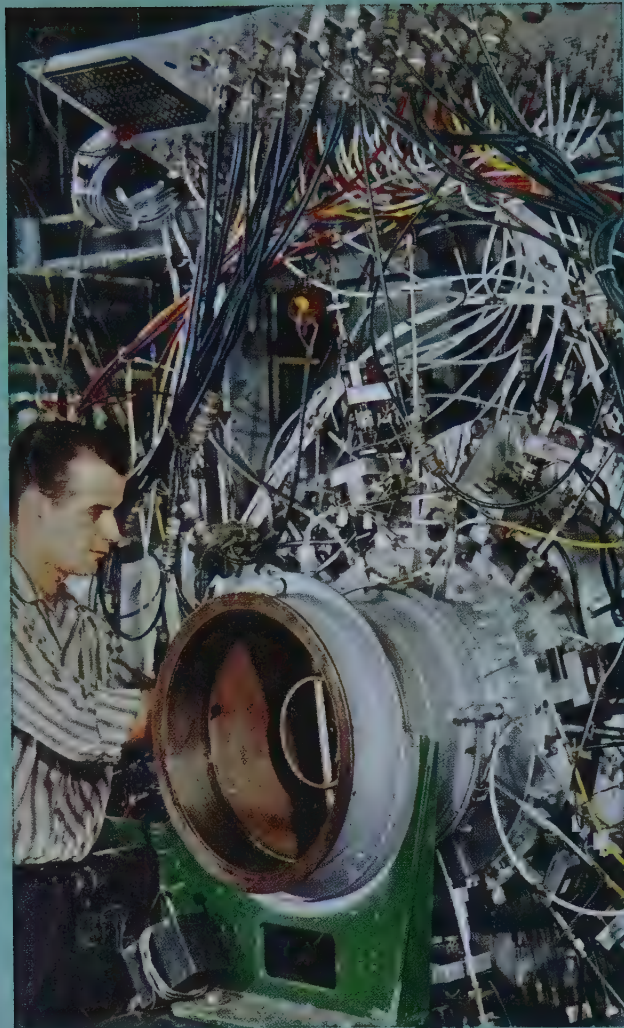
Meredith-Avco, Inc., a community antenna television (CATV) subsidiary owned jointly with Meredith Publishing Company, now operates 11 CATV systems in the South and Southeast, and has seven others under construction. The number of Meredith-Avco subscribers is expected to double by mid-1966. In addition, Meredith-Avco has a 50 per cent interest in Florida TV Cable Inc., which has three systems serving communities in that state.

In the past, community antenna television has had its principal growth in areas where poor television reception resulted from distance or topographical obstacles such as hills. The recent upsurge in color telecasting with the accompanying need for increased picture fidelity has generated additional demand for CATV services that is expected to rise.



Night views of Avco Broadcasting's new properties: WWDC-AM and FM, Washington, D.C., left, and WOAI and WOAI-TV, San Antonio, below. To the right, a linesman for a Meredith-Avco subsidiary attaches a CATV cable to a utility pole.





- *Left: Micro-electronic circuits are made by Avco Electronics for its own components and systems as well as those of other Avco divisions. The technician here uses a microscope during a delicate welding operation.*
- *Top right: Avco Lycoming's engine test facilities at Stratford include this unit designed to test the compatibility of gas turbine compressors and combustors. Instrument readings are obtained with wires attached to the critical design points of both engine components.*
- *Lower right: This huge Lockheed C-141 jet transport has wing box beam assemblies produced by Avco Aerostructures. The plant has been manufacturing these 81-foot-long assemblies since 1962.*

DEFENSE AND SPACE PRODUCTION *The needs of national defense resulted in accelerated production of Avco engines, airframe components, electronics and ordnance. Production for the space program, centered on the moon landing project, increased in preparation for first tests of the Apollo vehicle.*

Avco continued as a major supplier of engines for planes and helicopters, airframe components, electronic devices, reentry vehicles, penetration aids, missile components and ordnance items including ammunition. Under the space program, Avco is also an important source for manned spacecraft thermal protection systems and other subsystems for both manned and unmanned space vehicles.

Production rates of gas turbine engines at Avco Lycoming's Stratford plant were stepped up, reflecting the accelerated military effort in Vietnam and its emphasis on the helicopter. In the next few months, the division will have increased its production rates for the T53 and T55 turbine engines by 50 and 100 per cent, respectively, over the levels of last summer.

The T53 gas turbine engine powers the Bell UH-1, or "Huey," the main battle helicopter, used on double duty in Vietnam as a troop transport and as an armed escort. This power plant has demonstrated all of its original design criteria for ruggedness, including ability to sustain severe battle damage without loss of power.

Other aircraft using the T53 include the fixed wing, twin engine Grumman OV-1 observation plane and the Kaman HH-43 helicopter. Both are employed in Vietnam, with the latter widely used on Air Force missions to rescue downed airmen. Called the Mohawk, the Avco Lycoming-powered Grumman airplane is used extensively by the Army for aerial reconnaissance work.

The more powerful T55 gas turbine engine, also manufactured at Stratford, is seeing extensive combat duty as the power plant for the twin engine Boeing CH-47A Chinook transport helicopter. This aircraft is capable of transporting more than 35 armed infantrymen for fast deployment. Boeing recently unveiled an armed escort version of the Chinook which is being produced in limited quantities for extensive military evaluation.

Late in the fiscal year, Kaman announced a new design for an armed escort helicopter using the T55.

Along with its production of aircraft power plants, the Stratford facility also makes vital aircraft parts, such as constant speed drives. Used in the Navy's carrier-based Douglas A4E Skyhawk, the drive converts the uneven speed of the aircraft engine to the

constant power output required by the plane's electronic and auxiliary systems.

In addition to aircraft engines and components, the division produces Mark 11A reentry vehicles for the Minuteman II intercontinental ballistic missile.

Developed by the Avco Research and Development Division, the Mark 11A provides an example of the participation of two divisions in the same program, demonstrating the ever widening capabilities of the corporation.

The Air Force announced that the first operational firing of a Minuteman II from an operational silo had been 100 per cent successful. Equipped with the Mark 11A, the missile impacted more than 5,000 miles down range from the launching point at Vandenberg Air Force Base in California. Before it plunged into the Eniwetok lagoon, the missile achieved a maximum speed of 15,000 miles per hour on a ballistic trajectory topping 400,000 feet. The Avco-built reentry vehicle withstood temperatures exceeding 12,000 degrees Fahrenheit.

The Mark 11A-equipped Minuteman II will become the principal U.S. deterrent weapon when it is turned over in an operational status to the Strategic Air Command. The first wing of this advanced weapons system, consisting of 150 missiles, is presently under

A variety of ammunition components are made by Avco Ordnance Division. Here a Richmond worker assembles proximity fuzes for 81 millimeter mortar shells.





This incoming wave of Bell UH-1 "Huey" helicopters is powered by the T53 gas turbine engines manufactured at the Avco Lycoming Stratford facility. Avco Aerostructures makes airframe components for the helicopter.

construction at Grand Forks Air Force Base in North Dakota.

Production of missile equipment, including the Mark 11A, is expected to continue in 1966 at the same rate as last year.

Avco Lycoming has supplied engine testing facilities for a floating depot level repair operation to be set up under the Army's "Project Flattop." The test-

This Avco Lycoming-powered, twin turbine Boeing CH-47A Chinook, a medium transport, has become a mainstay of the Army's helicopter fleet operations in Vietnam.



ing units have been installed aboard the USNS Albatross. Project plans call for the repair ship to be sent to critical areas around the world such as Southeast Asia to backstop land-based field units.

Avco Lycoming's reciprocating engines produced by the Williamsport facility are used to power fixed wing aircraft made by Aero Commander, Beech, Helio, Mooney, Piper and others for both the civilian and military markets.

The Williamsport plant also manufactures engines for helicopters. Last fall the division received a contract to supply a 270-horsepower model for installation in the Army's Bell OH-13S observation helicopter. Reciprocating engines by Avco Lycoming also power Hiller, Hughes and other helicopters.

In addition, the Williamsport plant produces rotor components for the Boeing CH-46A Sea Knight helicopter being used by the Marine Corps. This unique helicopter can fold and unfold its power blades even in stiff winds, and therefore requires a relatively small storage area.

The Sea Knight, a twin-turbine, medium transport helicopter, is used for troop and cargo carrying missions and is qualified for both water landings and take-offs. This aircraft is capable of hauling 25 combat-equipped troops.

One of the division's 400 horsepower aircraft engines is being evaluated by the Army as the pro-

pulsion unit for a shallow draft boat. The eight-cylinder engine powers a pusher type aircraft propeller mounted on the stern of the highly maneuverable "air boat."

The craft is designed to carry a squad of combat-equipped troops through marshy terrain and other areas laced with shallow water.

The fabrication of major assemblies for both fixed and rotary wing aircraft continued to be the most important activity of the Avco Aerostructures Division. This production will be accelerated in 1966.

Production of wing box beam assemblies for the Lockheed C-141 jet transport is the largest single program at the Nashville plant. These assemblies, which have been built by the division since 1962, constitute the major part of the wings for the huge transport. During the year the Federal Aviation Agency certified the plane for commercial use, and orders for a somewhat larger version were placed by two civilian cargo carriers.

Last year was the twelfth during which the division has made tail assemblies for the Lockheed C-130 turboprop transport. Designed as a military transport, this aircraft is also sold in a commercial version. Avco Aerostructures continued its production of both tail boom assemblies and cabin roof sections for the UH-1 helicopter built by Bell and powered by Avco Lycoming. Also produced at Nashville are frame components for the Grumman A6A Intruder, an attack aircraft on duty with the Navy.

The division continued its missile and space work. Deliveries of aluminum honeycomb parts for NASA's Saturn were made throughout the year, as were thrust termination tubes for solid fuel boosters used by the Air Force Titan IIIC, successfully launched on its first flight last June.

Avco Aerostructures produces special aluminum sandwich structures used for mounting sensitive instruments on missiles and spacecraft. Built to permit internal circulation of fluids, the structures maintain constant temperatures in space vehicles.

The infrared countermeasures receiving system for the Air Force F-111 fighter is one of the most important production efforts of the Avco Electronics Division. This Avco-designed equipment is used to detect enemy missiles approaching the aircraft from the rear and so alert the pilot to the need for evasive action. Output is expected to rise in 1966.

In November the division secured an initial production contract for new high frequency radio receiver-transmitters to be installed in the F-111. Designated the AN/ARC-123, the new equipment includes such features as electronic tuning and solid

state design, and a reduction in weight and size from the models in current use.

The division also provides a variety of communications gear for missiles and space vehicles. The list includes command-destruct receivers for destroying rockets and space boosters which stray off course, telemetry equipment for the Saturn, and other devices used to relay in-flight data on engine performance, fuel consumption and vibration to ground receiving stations.

A growing family of Avco Electronics receivers

The sensitive instrument encircled was made by Avco Tulsa and measured the radiation absorbed by human tissue when Astronaut Edward White took his historic space walk during the flight of Gemini IV last year.





Technicians at Avco Research and Development Division's Lowell facility are seen applying the heat shielding to a section of an Apollo spacecraft. The craft is designed to carry this country's first voyagers to the moon and through reentry heat back safely to earth. Initial unmanned suborbital test flights of the Apollo have been scheduled during 1966.



Here are rotor components made by Avco Lycoming at Williamsport for the Boeing CH-46A Sea Knight helicopter. The craft is being used by the Marine Corps.

and decoders is being used on an increasing number of classified space programs. In addition, the division has received a contract for research, development and production of the radar segment for a detection and weapons system against ballistic missiles launched from submarines.

Assembly of integrated circuitry components continued in the division's "white room," specially equipped for maximum cleanliness. These parts are used in special ammunition made by Avco Ordnance Division, as well as in certain ground and space communications equipment still under development.

Avco's Huntsville, Ala., operation was enlarged during the year to provide more on-site facilities and capabilities in support of NASA's Marshall Space Flight Center.

Related to the division's production work are the operations of its Field Engineering Department, which provides technical assistance at military installations around the globe. Among the most important tasks performed by Field Engineering last year were the operation of meteorological and radar

services for the Army's mammoth White Sands Missile Range extending 600 miles from New Mexico into Utah.

Avco Ordnance Division increased its production rates during 1965 to remain one of the nation's major suppliers of military ammunition. The division makes conventional or non-nuclear ammunition, air-to-ground and surface-to-surface warheads, fuzes and related materials. Arming and fuzing devices are produced by the division for the Polaris, Minuteman and Titan missiles.

Working under contracts with NASA and the Air Force, the research-oriented Avco Tulsa Division designed, developed, and assembled space radiation instruments used during last year's globe circling flights of Gemini IV, VI and VII to measure the radiation absorbed by human muscle tissue. Called dosimeters, these instruments contain a special plastic substance with the same radiation absorption characteristics as human tissue.

Avco Everett, with the aid of Avco Aerostructures, is supplying the first magnetohydrodynamic (MHD) generator designed and built for other than experimental purposes to the Air Force's Arnold Engineering Development Center. The generator will power a hypersonic wind tunnel.

Manufacturing at the Avco Research and Devel-

opment Division is a growing aspect of its operations. Most important is the fabrication and application of Apollo heat shielding material at the Lowell facility. The Apollo is designed to carry this country's first voyagers to the moon and return them to earth.

In October the division received a contract from North American, the prime contractor for NASA's Apollo program, to provide heat shielding for 13 additional Apollo spacecraft designed for test missions in lunar orbit. The award came as the division was about to complete its heat shielding work on the last of the Apollo vehicles designed for earth orbit testing under contract awarded by North American in 1962.

The Avco-designed thermal protection system will protect the three astronauts inside the Apollo spacecraft from the fiery temperatures encountered by the vehicle as it reenters the earth's atmosphere en route from the moon to final splash-down.

The first suborbital Apollo flights, designed to test the Avco thermal protection system, have been scheduled for this year.

The division is also building 10-megawatt arcs for NASA's Manned Spacecraft Center. Because they can simulate the tremendous heat created when a spacecraft enters the atmosphere of earth or other planets, the arcs will be used to test various aerospace materials at the agency's Houston facility.

Avco Lycoming's Stratford plant makes the Mark 11A reentry vehicle for the Minuteman II missile which the Air Force fired on its first, full scale launch last year. During the fiery reentry of the ICBM, the Mark 11A withstood 12,000 degree heat. The Avco Research and Development Division performed development work on this advanced reentry vehicle.



ARTHUR YOUNG & COMPANY

277 PARK AVENUE
NEW YORK, N.Y. 10017

The Board of Directors and Stockholders
Avco Corporation

We have examined the accompanying statement of consolidated financial position of Avco Corporation at November 30, 1965 and the related statements of consolidated earnings and additional paid-in capital for the year then ended. (See Note 1.) We have also examined the accompanying statement of consolidated financial position of Avco Delta Corporation at November 30, 1965 and the related statement of consolidated earnings for the year then ended. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. It was not practicable to confirm amounts due to Avco Corporation from the U. S. government, as to which we satisfied ourselves by means of other auditing procedures.

In our opinion, the statements mentioned above present fairly the consolidated financial position of Avco Corporation at November 30, 1965 and the consolidated results of its operations for the year then ended, and the consolidated financial position of Avco Delta Corporation at November 30, 1965 and the consolidated results of its operations for the year then ended, all in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.



January 17, 1966



CONSOLIDATED EARNINGS (NOTE 1)

	Year ended November 30 1965	Year ended November 30 1964
Net sales	\$443,194,878	\$431,075,716
Equity in consolidated net earnings of		
Avco Delta Corporation (Note 1)	3,561,123	—
Other income	1,904,724	975,066
	<u>448,660,725</u>	<u>432,050,782</u>
Costs and expenses		
Cost of sales	351,853,234	336,711,863*
Selling and administrative (Note 5)	42,623,365	43,595,498*
Depreciation	7,042,338	6,234,061
Interest	2,808,501	964,820
U.S. federal and Canadian income taxes	19,900,000	21,900,000
	<u>424,227,438</u>	<u>409,406,242</u>
NET EARNINGS	<u>24,433,287</u>	<u>22,644,540</u>
Cash dividends declared		
Preferred stock—\$1.12½ per share	39,375	—
Common stock—\$1.00 per share	13,705,344	11,062,104
Increase in retained earnings	10,688,568	11,582,436
Retained earnings at the beginning of the year ...	98,717,899	87,135,463
Retained earnings at the end of the year (Note 4) ..	<u>\$109,406,467</u>	<u>\$ 98,717,899</u>

*After reclassification for comparative purposes.

ADDITIONAL PAID-IN CAPITAL

Balance at the beginning of the year	\$ 32,893,214	\$ 34,725,267
Excess of market price over par value of 2,340,456 common shares issued in exchange for shares of Delta Acceptance Corporation Limited (Note 1)	44,176,107	—
Excess of proceeds received over par value of common stock issued on exercise of options (1965—34,602 shares; 1964—37,787 shares) ...	432,618	416,962
Excess, over par value, of principal amount of 5% convertible subordinated debentures converted into common stock, after adjustment for purchase of fractional shares, etc, (1965—\$385,200 converted into 33,407 shares; 1964—\$191,600 converted into 16,547 shares)	286,675	141,431
Excess of purchase price over principal amount of \$2,230,000 of 5% convertible subordinated debentures purchased for retirement	—	(2,390,446)
Balance at the end of the year	<u>\$ 77,788,614</u>	<u>\$ 32,893,214</u>

See accompanying notes page 32.



CONSOLIDATED FINANCIAL POSITION (NOTE 1)

	November 30 1965	November 30 1964
ASSETS		
Cash	\$ 20,215,558	\$ 15,522,862
Marketable securities, at cost (approximate market)	7,111,573	8,466,214
Receivables		
U. S. government	42,992,190	47,635,594
Other	59,147,873	42,191,800
	102,140,063	89,827,394
Inventories, at the lower of cost or market		
U. S. government contracts and subcontracts ...	65,263,027	66,024,241
Less—Progress payments	(16,265,336)	(25,169,438)
Civilian	39,554,808	31,933,433
	88,552,499	72,788,236
TOTAL CURRENT ASSETS	218,019,693	186,604,206
Property, plant and equipment, at cost		
Land	3,067,593	1,880,496
Plant and equipment	132,449,858	109,254,588
Less—Accumulated depreciation	(71,498,448)	(65,293,513)
	64,019,003	45,841,571
Investment in Avco Delta Corporation, at equity in net assets (Note 1)	89,533,534	—
Other assets		
Miscellaneous investments, at cost	8,341,628	8,045,531
Intangible assets recognized in acquisitions of non-finance businesses (Note 1)	16,158,864	—
Other intangible assets, at cost less amortization	776,286	598,190
	25,276,778	8,643,721
TOTAL ASSETS	\$396,849,008	\$241,089,498

See accompanying notes page 32.

	November 30 1965	November 30 1964
LIABILITIES AND STOCKHOLDERS' EQUITY		
Notes payable		
Banks, under revolving credit agreement	\$ 25,000,000	\$ —
Commercial paper	10,000,000	—
Accounts payable and accrued liabilities	53,989,407	47,135,009
U. S. federal and Canadian income taxes	19,919,733	18,741,979
Long term debt installments due within one year	469,571	1,779,150
TOTAL CURRENT LIABILITIES.....	109,378,711	67,656,138
Long term debt (Note 2)	55,783,000	17,477,312
STOCKHOLDERS' EQUITY		
Preferred stock, without par value		
Authorized: 200,000 voting shares		
Designated and issued: \$4.50 cumulative convertible, stated at liquidating value of \$100 per share—35,000 shares (Note 1)	3,500,000	—
Common stock, par value \$3 per share		
Authorized: 20,000,000 shares in 1965 and 15,000,000 shares in 1964		
Issued: 13,742,637 shares in 1965 and 11,334,172 shares in 1964	41,227,911	34,002,516
Reserved in 1965: 820,515 shares (Note 3)		
Additional paid-in capital	77,788,614	32,893,214
Retained earnings (Note 4)	109,406,467	98,717,899
	231,922,992	165,613,629
Less—cost of common stock held in treasury: 9,900 shares in 1965 and 431,600 in 1964	235,695	9,657,581
TOTAL STOCKHOLDERS' EQUITY.....	231,687,297	155,956,048
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$396,849,008	\$241,089,498

See accompanying notes page 32.



NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1: PRINCIPLES OF CONSOLIDATION AND ACQUISITIONS

The consolidated financial statements of Avco Corporation include the accounts of all wholly-owned subsidiaries other than finance subsidiaries (operated through Avco Delta Corporation). The consolidated financial statements of Avco Delta Corporation are shown separately.

Pursuant to its offer made effective December 7, 1964, Avco exchanged 2,772,056 shares of its common stock (including 431,600 treasury shares) for shares of Delta Acceptance Corporation Limited and made a capital contribution of such acquired shares to its wholly-owned subsidiary, Avco Delta Corporation. The investment in Avco Delta is stated at Avco's equity in the consolidated net assets of Avco Delta which include \$54,040,662 of costs in excess of acquired equity in net assets, which excess is being carried without amortization.

During 1965, Avco also acquired Bay State Abrasive Products Company and its subsidiaries (August 5), radio stations WWDC (AM and FM), Washington, D.C. (August 31), and television and radio stations WOAI, San Antonio, Texas (October 27) for an aggregate consideration of approximately \$41,700,000, consisting of approximately \$38,100,000 in cash, 35,000 shares of \$4.50 cumulative convertible preferred stock and 5,000 shares of common stock. Sales and earnings of these businesses since the respective dates of acquisition, reflected in the consolidated statement of earnings for the year ended November 30, 1965, were not material. The excess of market prices of shares exchanged and cash paid for investments over acquired equity in net assets (after allocating \$8,568,000 to property, plant and equipment based on independent appraisals) was applicable to broadcasting licenses, network contracts and goodwill and is included in intangible assets being carried without amortization.

NOTE 2: LONG TERM DEBT

At November 30, 1965 long term debt consisted of:

4% notes due in annual installments of \$2,500,000 commencing October 1, 1967 until October 1, 1985 when the balance of \$5,000,000 is due	\$50,000,000
5% convertible subordinated debentures maturing February 1, 1979	3,927,100
Miscellaneous (interest rates to 5½% and maturities to 1978)	2,325,471
	<u>56,252,571</u>

Less installments due within one year (included in current liabilities)	469,571
	<u>\$55,783,000</u>

An agreement with a group of banks provides Avco a revolving line of credit of \$60,000,000 until April 15, 1970.

NOTE 3: COMMON STOCK

At November 30, 1965, common stock was reserved for the following: exchange for shares of Delta Acceptance Corporation Limited, 117,835 shares; conversion of preferred stock at \$28.20 per share, 124,113 shares; and conversion of convertible debentures at \$11.50 per share, 341,486 shares. There were also reserved under a stock option plan approved by stockholders 237,081 shares of common stock against which options were outstanding on 118,866 shares of which options on 108,200 shares were then exercisable. The prices of the outstanding options, which were above the market prices on the dates the options were granted, aggregate \$2,674,549 and the options expire at various dates between May 17, 1966 and August 18, 1970.

At November 30, 1964 there were reserved under the stock option plan 271,683 shares against which options on 149,468 shares were then outstanding. During the 1965 fiscal year options on 7,500 shares were granted, 34,602 shares were issued on exercise of options and options on 3,500 shares expired.

NOTE 4: RETAINED EARNINGS

Under agreements relating to long term debt and the bank credit approximately \$28,500,000 of Avco's retained earnings at November 30, 1965 were not restricted as to the payment of cash dividends on common stock.

NOTE 5: INCENTIVE COMPENSATION

Under the plan (amended during the year) approved by the stockholders, there is payable as incentive compensation 10% of the amount by which consolidated earnings (as defined) exceed 8% of consolidated capital (as defined) both as determined by Avco's independent auditors. Incentive compensation available with respect to 1965 (included in selling and administrative expenses) amounted to \$3,450,138. Incentive compensation charged to 1964 income under the plan previously in effect amounted to \$3,357,516.

NOTE 6: PENSION PLANS

Avco has in effect non-contributory pension plans covering certain hourly employees. Unfunded past service costs, which are being funded over a period of 30 years, were approximately \$12,100,000 at November 30, 1965.



CONSOLIDATED SOURCE AND DISPOSITION OF WORKING CAPITAL

SOURCE OF WORKING CAPITAL	Year ended November 30 1965	Year ended November 30 1964
	1965	1964
Net earnings	\$24,433,287	\$22,644,540
Depreciation	7,042,338	6,234,061
Less equity in consolidated net earnings of Avco Delta Corporation	(3,561,123)	—
	27,914,502	28,878,601
Common stock options exercised	536,424	530,323
Increase (decrease) in long term debt other than convertible debentures	37,667,488	(946,650)
Decrease (increase) in other	273,436	(3,864,518)
TOTAL	66,391,850	24,597,756
DISPOSITION OF WORKING CAPITAL		
Cash dividends declared	13,744,719	11,062,104
Treasury stock purchased	259,626	9,657,581
Convertible debentures purchased	—	4,620,446
Investment in Avco Delta Corporation, \$85,972,411 of which \$60,878,987 was in Avco common stock	25,093,424	—
Investment in Bay State Abrasive Products Company, \$26,104,826 less \$8,732,208 of work- ing capital acquired	17,372,618	—
Investment in television (WOAI) and radio (WOAI and WWDC) stations, \$15,612,208 of which \$3,500,000 was in Avco preferred stock	12,112,208	—
Net additions to property, plant and equipment...	8,116,341	9,301,132
TOTAL	76,698,936	34,641,263
DECREASE IN WORKING CAPITAL	\$10,307,086	\$10,043,507

CONSOLIDATED FINANCIAL POSITION

	<i>November 30</i> 1965
ASSETS	
Cash	\$ 26,840,455
Marketable securities, at cost (approximate market)	<u>3,337,504</u>
Receivables (including amounts due after one year)	
Retail installment	194,422,614
Loans	132,454,248
Wholesale and other	<u>11,731,043</u>
	338,607,905
Less—Unearned discount and service charges..	(36,623,821)
Allowance for losses	<u>(5,735,400)</u>
Net receivables	296,248,684
Other current assets	<u>5,591,649</u>
TOTAL CURRENT ASSETS	<u>332,018,292</u>
Net assets of insurance subsidiaries (Note 1).....	5,043,085
Property and equipment and deferred expenses at cost less accumulated depreciation and amortization	3,479,662
Excess of cost of investments in subsidiaries over acquired equity in net assets (Note 1).....	<u>54,040,662</u>
TOTAL ASSETS	<u>\$394,581,701</u>

	<i>November 30</i> 1965
LIABILITIES AND STOCKHOLDER EQUITY	
Notes payable	
Banks	\$ 76,260,000
Commercial paper	68,219,625
Long term debt installments due within one year	6,630,251
Accounts payable and accrued liabilities	4,576,714
U. S. federal and Canadian income taxes	2,205,620
Savings deposits	9,395,742
Other current liabilities	<u>1,563,354</u>
TOTAL CURRENT LIABILITIES	<u>168,851,306</u>
Long term debt (Note 2)	128,162,849
Minority interest in subsidiary companies	<u>8,034,012</u>
STOCKHOLDER EQUITY (Note 1)	
Capital stock, no par value	
Authorized: 1,000 shares	
Issued and outstanding: 738 shares	23,850,000
Additional paid-in capital	62,122,411
Retained earnings (Note 3)	<u>3,561,123</u>
TOTAL STOCKHOLDER EQUITY	<u>89,533,534</u>
TOTAL LIABILITIES AND STOCKHOLDER EQUITY	<u>\$394,581,701</u>

See accompanying notes page 35.

CONSOLIDATED EARNINGS

	<i>Year ended November 30</i> 1965
Interest, discount and service charges of finance companies	\$40,317,382
Income of insurance subsidiaries before income taxes	880,455
	<u>41,197,837</u>
Expenses	
Interest and debt expense	11,715,785
Allowance for losses on collection of receivables	5,211,588
Other operating expenses (including depreciation of \$323,558)	16,197,948
U. S. federal and Canadian income taxes	4,045,854
	<u>37,171,175</u>
Earnings before minority interest	4,026,662
Preferred stock dividends paid by subsidiary	465,539
	<u>4,492,201</u>
NET EARNINGS (Note 3)	<u><u>\$ 3,561,123</u></u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1: PRINCIPLES OF CONSOLIDATION AND ACQUISITIONS

The consolidated financial statements of Avco Delta Corporation include the accounts of all subsidiaries except insurance companies; combined assets (\$10,754,703) less combined liabilities (\$5,711,618) of insurance companies are shown separately in the statement of consolidated financial position and their income before income taxes is shown separately in the statement of consolidated earnings.

Canadian dollar amounts have been translated at the established rate of exchange of \$1 Canadian = \$.925 U.S. At November 30, 1965, \$186,402,251 of current assets and \$18,272,359 of current liabilities and long term debt were represented by accounts to be settled in Canadian funds.

Avco Delta Corporation, a wholly-owned subsidiary of Avco Corporation, had no operations prior to December 1964. As of December 7, 1964 Avco Delta acquired, through a contribution from its parent company to its additional paid-in capital, substantially all of the outstanding common shares and a significant portion of the outstanding preference shares of Delta Acceptance Corporation Limited. During the year Avco also purchased shares of Avco Delta's capital stock for \$23,800,000 in cash.

During 1965 Avco Delta made additional purchases of Delta shares and acquired Citizens Finance Company and its affiliates and Iowa Finance Company and its affiliates for an aggregate cash consideration of approximately \$19,400,000.

Operations of subsidiaries from the respective dates of acquisition are included in Avco Delta's consolidated earnings for the year ended November 30, 1965. The excess of market prices of Avco shares exchanged and cash paid in 1965 for investments in subsidiaries over acquired equity in net assets is

being carried without amortization. Cost of investments by Delta, prior to its acquisition by Avco Delta, over acquired equity in net assets is also being carried without amortization.

NOTE 2: LONG TERM DEBT

At November 30, 1965 long term debt consisted of:

Senior notes payable—4½% to 6¾% maturing annually to November 15, 1980	\$ 88,147,500
Senior subordinated notes payable—4½% to 6½% maturing annually to November 15, 1980	27,913,750
Junior subordinated notes payable—5½% to 6¾% maturing annually to November 15, 1980	18,591,250
Sinking fund debentures—5½% due March 1, 1968	140,600
	<u>134,793,100</u>
Less installments due within one year (included in current liabilities)	6,630,251
	<u><u>\$128,162,849</u></u>

NOTE 3: RETAINED EARNINGS

Under agreements relating to the notes payable, none of the retained earnings at November 30, 1965 was available for the payment of cash dividends on capital stock.

NOTE 4: LITIGATION

See the heading "Financial Services" on page 18 for information concerning litigation.



FIVE YEAR FINANCIAL REVIEW

EARNINGS STATISTICS

<i>Year ended Nov. 30</i>	<i>Net sales</i>	<i>Earnings before income taxes</i>	<i>U.S. federal and Canadian income taxes</i>	<i>Net earnings</i>	<i>Net earnings per share of common stock</i>	<i>Cash dividends per share of common stock</i>
1965	\$443,194,878	\$44,333,287	\$19,900,000	\$24,433,287	\$1.78	\$1.00
1964	431,075,716	44,544,540	21,900,000	22,644,540	2.05	1.00
1963	514,132,435	46,792,997	24,360,000	22,432,997	2.00	.80
1962	414,280,128	41,037,265*	20,997,000*	20,040,265*	1.83*	.67½
1961	323,142,012	25,513,052	12,531,000	12,982,052	1.24	.57½

*Profit on the sale of substantially all of the assets of Crosley Broadcasting of Atlanta, Inc. increased earnings before income taxes by \$1,696,989, U. S. federal income tax by \$447,000 and net earnings by \$1,249,989 or \$.11 per share.

FINANCIAL POSITION STATISTICS

<i>Nov. 30</i>	<i>Working capital</i>	<i>Common stockholders' equity</i>	<i>Common stockholders' equity per share</i>
1965	\$108,640,982	\$228,187,297	\$16.62
1964	118,948,068	155,956,048	14.30
1963	128,991,575	155,698,969	13.80
1962	117,617,964	139,696,647	12.62
1961	107,761,849	123,930,674	11.46





Avco CORPORATION

TO THE STOCKHOLDERS OF AVCO CORPORATION:

On February 11, 1965, after the Avco Annual Report had gone to press, Avco Corporation and Bay State Abrasive Products Company announced that an agreement had been signed under which Avco will purchase for cash the stock of Bay State at a cost of approximately \$26 million.

Bay State, a closely-held corporation with headquarters in Westboro, Mass., is the third largest company in the expanding abrasives industry. It produces bonded abrasives, diamond grinding wheels, cutting tools and related products.

The new acquisition will provide outstanding commercial products and an extensive marketing organization, which will be complemented by Avco's advanced capabilities in materials research and development. When the acquisition is completed on or about July 30, 1965, the company will be operated as the Bay State Abrasives Division of Avco.

The acquisition marks Avco's third major expansion move in commercial fields during the last eight months. Earlier, Avco acquired Delta Acceptance Corporation, leading financial services firm, through an exchange of stock; and entered the growing field of community antenna television through Meredith-Avco, Inc., a company jointly owned with Meredith Publishing Company.

As stated in the Avco Annual Report, approximately 47 per cent of Avco earnings in 1964 were derived from commercial sales and the balance from government volume. However, with the entrance into these new fields, expanded commercial operations are expected to provide more than 60 per cent of Avco's total profits in 1965, and approximately 70 per cent in 1966.

Bay State's greatest product development potential is in abrasive materials and particles, in contrast to abrasive wheel binders where most industry development efforts have been concentrated in the past. It is in this abrasive materials area, as well as in composite materials development, that Avco through its Research and Advanced Development Division is expected to make important contributions to Bay State.

Avco has extensive research and development competence in industrial ceramics, electrical and electronics components, laboratory crucibles and related fields. This competence now will be harnessed to Bay State's precision ceramic manufacturing capabilities. Bay State, which previously had planned to move into these research areas, now can do so far more effectively through the resources of the Avco Research and Advanced Development Division.

New high temperature materials, together with processes and equipment for applying them, have been developed by Avco. The market exploitation of these products is expected to be accelerated through the Bay State marketing organization.

Bay State, in addition to its principal manufacturing facility in Massachusetts, has manufacturing subsidiaries in Canada (Bay State, Canada, in Brantford, Ontario), California (Felker Manufacturing Company, Torrance), and Luxembourg (Bay State Abrasives, S.A.).

February 11, 1965

Avco Corporation, 750 Third Avenue
New York, N. Y. 10017

Hendrick R. Wilson Jr.
Chairman

James R. Ken
President

